

**1997 CALFED BAY-DELTA PROGRAM CATEGORY III  
ECOSYSTEM RESTORATION PROJECTS AND PROGRAMS  
INQUIRY SUBMITTAL**

**a. Project Title.** Avocado Lake Restoration Site, Kings River, California.

**Applicant Name:** U.S. Army Corps of Engineers (potential non-Federal sponsor is the Kings River Conservation District).

**b. Project Description and Primary Biological/Ecological Objectives:** The proposed project would be to provide spawning habitat for trout in the Kings River below Pine Flat Dam, spawning and rearing habitat for warmwater fish within Avocado Lake and riparian and shaded riverine aquatic habitat in the overall area. These objectives would be reached by constructing a channel from the Kings River to Avocado Lake, with an inlet leading from the Kings River into the upstream end of the lake and an outlet leading from the lake back into the river. This inlet/outlet system would provide a flow through the lake, inhibiting the growth of water milfoil. The outlet channel would be designed to accommodate suitable substrate for fish spawning and would be designed to discourage gravel washing downstream during high flow from Pine Flat Dam. The new channel would be planted with riparian and shaded riverine aquatic vegetation.

**c. Approach/Tasks/Schedule:** The Corps of Engineers is in the process of revising a Preliminary Restoration Plan for this potential project. The study is being investigated under the authority of Section 1135 of the Water Resources Development Act of 1986, as amended - Project Modification for Improvement of the Environment. It is anticipated that the PRP will be developed into a Project Modification Plan (feasibility) then proceed into plans and specifications and construction could be initiated as early as early 1999. Following is the preliminary schedule:

Corps approves PRP:	November 1997
Corps approves PMR:	November 1998
Completion of P&S:	May 1999
Cost sharing agreement with sponsor:	May 1999
Initiate construction:	July 1999

**d. Justification for Project and Funding by CALFED:** The proposed project would improve and increase aquatic and terrestrial habitats and improve ecological functions within a tributary to the San Joaquin River and would support sustainable populations of diverse and valuable plant and animal species. This objective is the same as the objective of the CALFED Bay-Delta Program.

**e. Budget Costs and Third Party Impacts:** The Corps of Engineers will provide 75 percent of the cost of the development of the feasibility study, plans and specifications, and construction. The non-Federal sponsor will be responsible for the remaining 25 percent of these costs. The

estimated cost of implementing the Avocado Lake Habitat Restoration Plan is \$3 million. The cost of preparing the PMR is \$300,000. Annual operation and maintenance is estimated to be \$16,000 per year.

**f. Applicant Qualifications:** The potential non-Federal sponsor for this project is a public organization. The potential non-Federal sponsor has a strong interest in ecosystem restoration.

**g. Monitoring and Data Evaluation:** Resident instream fishery populations will be monitored both before and after project implementation. Establishment of riparian and shaded riverine aquatic habitat will also be monitored, as will restoration of gravel for spawning.

**h. Local Support/Coordination/CALFED Compatibility:** Local support for this project is strong. The Kings River Conservation District has expressed support for ecosystem restoration at this site and a willingness to participate as the project's non-Federal sponsor. The Fresno County Parks is also fully supportive of this project, as are the California Department of Fish and Game and the U.S. Fish and Wildlife Service. This project is being pursued under the Corps of Engineers Section 1135 Program - Project Modification for the Improvement of the Environment. The project is fully compatible with the objectives of CALFED.